

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Number: 6,907,963 B1
Issued : June 21, 2005
Patentee : Brown et al.
Title : Brake System Having Hydraulic Accumulator and/or Combined Service
Brake and Park and Hold Brake

CERTIFICATION OF SUBMISSION

I hereby certify that, on the date shown below, this correspondence is being transmitted via the Patent Electronic Filing System (EFS) addressed to Certificate of Correction at the U.S. Patent and Trademark Office.

Date: March 17, 2006

Jul R. Palmatier

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

ATTENTION: Certificate of Correction Branch

**REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT
FOR PTO MISTAKE (37 C.F.R. SECTION 1.322(A))**

Sir:

It is requested that a Certificate of Correction be issued correcting printing errors appearing in the above-identified United States Patent.

Attached is Form PTO-1050, with the text of the Certificate in the suggested form suitable for printing.

The column and line number where the errors occur in the issued patent are as follows:

Column 21, line 8: Replace "matching" with --unlatching--.

Column 24, line 6: Replace "trough" with --through--.

REMARKS

The errors sought to be corrected in the claims are Patent Office printing errors.

Supporting documentation includes a copy of relevant portions of an Amendment and Response dated June 18, 2004, showing the original text to claims 11 and 19 (now renumbered 11 and 19 respectively).

The requested corrections are to correct printing errors to conform with the specification and claims as allowed by the Examiner during prosecution. Issuance of a Certificate of Correction would not change either the scope or the meaning of the specification, and re-examination is not required.

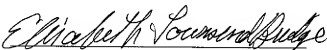
As the errors listed are due to the Patent Office's printing mistakes, no fee is necessary in connection with this Certificate.

The Examiner is requested to contact the undersigned Attorney for Applicant should any questions arise with respect to this Request.

Please send the Certificate of Correction to:

Elisabeth Townsend Bridge
Whyte Hirschboeck Dudek S.C.
555 East Wells Street, Suite 1900
Milwaukee, WI 53202-3819

Dated: 3-16-06


Elisabeth Townsend Bridge, Reg. No. 37523
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**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 1 of 1

PATENT NO. : 6,907,963 B1
APPLICATION NO.: 09/914,867
ISSUE DATE : June 21, 2005
INVENTOR(S) : Donald D. Brown et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 21, line 8: Replace "matching" with --unlatching--.

Column 24, line 6: Replace "trough" with --through--.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Whyte Hirschboeck Dudek SC
555 East Wells Street, Suite 1900
Milwaukee, Wisconsin 53202

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

COPY

Patent

Attorney Docket No.: HBR-32272-PCT-US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : BROWN, Donald D.
Serial No. : 09/914,867
Confirmation No. : 4216
Filing Date : March 13, 2002
For : Brake System Having Boosted Hydraulic Accumulator and/or
Combined Service Brake and Park and Hold Brake
Group Art Unit : 3683
Examiner : Christopher P. Schwartz

CERTIFICATION UNDER 37 CFR 1.8(a) and 1.10

I hereby certify that, on the date shown below, this correspondence is being:

Mailing

- ☐ deposited with the United States Postal Service in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

37 CFR 1.8(a)

37 CFR 1.10

- ☐ with sufficient postage as first class mail
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Transmission

- ☒ transmitted by facsimile to Fax No.: 1-703-872-9306 addressed to Examiner Christopher Schwartz at the Patent and Trademark Office.

Date: June 18, 2004

Chris Strong

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT AND RESPONSE

INTRODUCTORY COMMENTS

Dear Sir:

This communication is responsive to the Office Action mailed April 1, 2004. The Applicant responds as follows:

DOCKET BY *BS 6/23/04*
CDC BY *SA 7/1/04/10/1/04 JB*

ATTY INITIALS _____

and in which said brake pedal returns automatically to said at-rest position upon release of the manual operating forces to release the brakes, 2) through a locked position which is located beyond an end of said operating stroke, and 3) to an over-travel position which is located beyond said locked position;

(B) a brake pedal locking mechanism which cooperates with said brake pedal so as to 1) automatically latch said brake pedal in said locked position upon movement of said brake pedal into said locked position, thereby holding the brakes in their engaged condition upon release of the actuating forces, and 2) automatically unlatch said brake pedal from said locked position upon movement of said brake pedal into said over-travel position, thereby permitting return of said brake pedal to said at-rest position upon release of the actuating forces and releasing the brakes;

(C) an accelerator pedal; and

(D) a kickoff mechanism which couples said accelerator pedal to said brake pedal locking mechanism and which actuates said brake pedal locking mechanism to unlatch said brake pedal from said locked position upon actuation of said accelerator pedal;

wherein said kick-off mechanism is configured to cooperate with said accelerator pedal so as to unlatch said brake pedal within an initial three inches of accelerator pedal movement from an at-rest position thereof.

11. (Original) A brake actuator assembly for a park and hold brake system of a vehicle comprising:

(A) a brake pedal which is pivotal, under the imposition of manual operating forces, from an at-rest position, 1) through an operating stroke in which the vehicle's brakes are engaged and in which said brake pedal returns automatically to said at-rest position upon release of the manual operating forces to release the brakes upon release of the actuating forces, 2) through a locked position which is located beyond an end of said operating stroke, and 3) to an over-travel position which is located beyond said locked position; and

(B) a brake pedal locking mechanism including a cam on said brake pedal, a cam follower which engages said cam, a control arm which operatively cooperates with said cam

follower, and an over-center spring which operatively communicates with both said cam follower and said control arm and which moves through an over-center position upon movement of said brake pedal into said locked position at the end of said operating stroke position, thereby changing a biasing direction thereof from one pulling said cam follower downwardly to one pulling said cam follower upwardly.

12. (Original) An actuator assembly as recited in claim 11, further comprising

(A) an accelerator pedal; and

(B) a kickoff mechanism which operatively couples said accelerator pedal to said brake pedal locking mechanism and which actuates said brake pedal locking mechanism to unlatch said brake pedal from said locked position upon actuation of said accelerator pedal.

13. (Original) An actuator assembly as recited in claim 12, wherein said cam follower comprises a swing arm which is positioned adjacent said brake pedal and a roller which is mounted on said swing arm so as to ride along said cam, and wherein said kick-off mechanism comprises an arm which is mounted on said swing arm and which is engaged by said accelerator pedal upon actuation thereof so as to drive said swing arm to a position in which said over-center spring assumes said over-center position and releases said brake pedal.

14. (Original) An actuator assembly as recited in claim 11, wherein said control arm is mounted on said brake pedal and said cam follower comprises a swing arm which is positioned adjacent said brake pedal and a roller which is mounted on said swing arm so as to ride along said cam.

15. (Original) An actuator assembly as recited in claim 14, wherein a dog is provided on said swing arm and a detent is provided on said control arm, and wherein said locking mechanism is configured so that said dog is locked against said detent when said brake pedal is in said locked position.

16. (Original) An actuator assembly as recited in claim 15, further comprising a lug on said swing arm and a toggle arm which is mounted on said brake pedal and which selectively

cooperates with said lug on said swing arm so as to prevent contact between said dog and said detent until said brake pedal approaches said locked position, thereby providing for single point latching and a single audible indication that the brake pedal has been depressed sufficiently to be latched in said locked position.

17. (Original) An actuator assembly as recited in claim 14, wherein said cam and said roller are configured such that, during unlatching of said brake pedal, said roller rides along said cam in a path that is at least generally tangential to a pivot arc of said swing arm during at least a portion of a brake pedal unlatching process, thereby facilitating unlatching of said brake pedal by said kick-off mechanism.

18. (Original) An actuator assembly as recited in claim 11, further comprising a support bracket on which said brake pedal, said locking mechanism, and said accelerator pedal are mounted such that said brake pedal and accelerator pedal are coaxially pivotal about a first axis and said swing arm is pivotal about a second axis which is parallel to but offset from said first axis.

19. (Original) A brake actuator assembly for a hydraulic braking system of a vehicle comprising:

(A) a brake pedal which is pivotal, under the imposition of manual operating forces, from an at-rest position, through an operating stroke in which the vehicle's brakes are engaged and in which said brake pedal returns automatically to said at-rest position upon release of the manual operating forces to release the brakes, and to a locked position which is located beyond an end of said operating stroke;

(B) a brake pedal locking mechanism which automatically latches said brake pedal in said locked position upon movement of said brake pedal into said locked position, thereby holding the brakes in their engaged condition, said brake pedal locking mechanism including a cam on said brake pedal, a swing arm, and a roller which is mounted on said swing arm and which rides along said cam;

(C) an accelerator pedal; and

(D) a kickoff mechanism which is mounted on said swing arm and which is engaged

by said accelerator pedal upon accelerator pedal actuation to move said swing arm into a position that unlatches said brake pedal from said locked position, wherein said cam and said roller are configured such that, during at least a portion of a brake pedal unlatching process, said roller rides along said cam in a path that is at least generally tangential to a pivot arc of said swing arm, thereby facilitating unlocking of said lock mechanism by said kick-off mechanism.

20. (Original) A vehicle comprising:

- (A) a plurality of wheels;
- (B) a chassis supported on said wheels and having a floorboard; and
- (C) a hydraulic braking system comprising

- (1) a plurality of hydraulic brakes, each of which is associated with a

corresponding one of said wheels,

- (2) a hydraulic master cylinder in fluid communication with said brakes, and

- (3) a brake actuator assembly which is coupled to said master cylinder, said

brake actuator assembly being located entirely above said floorboard and including

- a) a support bracket which is mounted on said vehicle above said floorboard,

- b) a brake pedal which is mounted on said support bracket so as to be pivotal, under the imposition of manual operating forces, from an at-rest position, i) through an operating stroke in which the vehicle's brakes are engaged and in which said brake pedal returns automatically to said at-rest position upon release of the manual operating forces to release the brakes, ii) through a locked position which is located beyond an end of said operating stroke, and iii) to an over-travel position which is located beyond said locked position,

- c) a brake pedal locking mechanism including a cam on said brake pedal, a cam follower which engages said brake pedal, a control arm which operatively cooperates with said cam follower, and an over-center spring which operatively communicates with both said cam follower and said control arm and which moves through an over-center position upon movement of said brake pedal into said locked position at the end of said